

## **FIRE ENGINEER**

### **DISTINGUISHING FEATURES**

The fundamental reason the Fire Engineer exists is to provide for the safe response of fire fighting apparatus to fire and emergency medical service (EMS) alarms and for effective operation of pumper, ladder, and special fire fighting apparatus at emergencies and routine assignments. Participates in fire fighting activities, fire prevention activities, public education and station and equipment maintenance activities. Provides emergency medical care to sick and injured persons. This classification is not supervisory. Work is performed under the general supervision of a Captain.

### **ESSENTIAL FUNCTIONS**

Drives fire-pumping and aerial ladder apparatus to alarms and operate pump and ladders at the fire; regulates water pressure through hose lines.

Operates and oversees the use of numerous types of vehicles, equipment, tools, and apparatus.

Inspects vehicles, equipment, and apparatus including aerial ladder and pumping equipment; performs maintenance and minor repair work; identifies the need for major repairs; maintains records of maintenance and overhauls.

Performs the duties of a Firefighter when not operating an apparatus.

Maintains an awareness of City layout and the water system.

Performs first aid at the Emergency Medical Technician level.

Participates in inspections, drills and other training activities.

Participates in station maintenance work.

Participates in public education and community relation activities including school visits and fire station tours.

May act as a Fire Captain as required.

Operates emergency response vehicles.

Performs related duties as assigned.

### **MINIMUM QUALIFICATIONS**

#### **Knowledge, Skills, and Abilities**

##### Knowledge of:

Principles, practices, and procedures of modern firefighting.  
Purpose, operation and maintenance of firefighting vehicles, equipment and apparatus.  
Hydraulics and their application to the operation of fire apparatus.  
Principles of mechanics and mathematics as related to Fire Engineer duties.  
Fire prevention principles and practices; Uniform Fire Code; Uniform Building Code.  
Departmental policies, rules, and instructions for firefighting and rescue activities.  
Extrication and the use of extrication tools.

Geographical layout of the City of Scottsdale and automatic response areas, street names and numbers, and location of hydrants.  
Emergency Medical Technician basic life support procedures and paramedic support procedures.  
Computers and related software.

Ability to:

Drive and operate the full range of fire apparatus and equipment used by the department in a safe and effective manner.  
Operate heavy motorized equipment at maximum operating efficiency consistent with safety and mechanical limitations.  
Perform field calculations of hydraulics for the operation of equipment at emergency scenes.  
Apply firefighting techniques and procedures; operate firefighting and rescue equipment.  
Think and act quickly and effectively in emergencies.  
Deal effectively with people under stressful situations.  
Demonstrate physical endurance, agility, strength, and stamina under emergency situations.  
Select and use appropriate equipment and apparatus for emergency situations.  
Understand and follow oral and written directions promptly and accurately.  
Establish and maintain effective working relationships with co-workers, supervisors, and the general public.  
Maintain regular consistent attendance and punctuality.  
Communicate both verbally and in writing with all levels of the organization using clearly organized thoughts, proper sentence construction, punctuation, and grammar.  
Provide superior customer service for both internal and external customers.  
Operate a variety of standard office equipment, a personal computer and a variety of computer software that require continuous and repetitive arm or hand and eye movement for extended periods of time.  
Bend or stoop repeatedly or continually over time to perform emergency medical services or perform duties on the fire ground.  
Perform duties requiring frequent pulling of 40 pounds or more, such as removing hose from apparatus, pulling ceilings, starting power equipment, and opening doors on the apparatus.  
Lift arms above shoulder level to cut vent holes with an axe or to force entry into automobiles using specialized tools.  
Use appropriate Personal Protection Equipment (PPE), including a self-contained breathing apparatus (SCBA) while performing tasks in environments that may be immediately dangerous to life.  
Work in a variety of weather conditions.  
Tolerate extreme fluctuations in temperature while performing job duties.

**Education & Experience**

Requires three years experience as a sworn member of the Scottsdale Fire Department.  
Requires completion of Fire Hydraulics and Fire Apparatus courses at an accredited college or university.

Additional Requirements/Certifications

State of Arizona Emergency Medical Technician (EMT) Certification  
Possession of a valid Paramedic Certificate may be required by some positions.

**Special Requirement**

Must possess and maintain a valid Arizona Driver's License with no major driving citations in the last 39 months.

FLSA Status: Non-Exempt

HR Ordinance Status: Classified